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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,652	04/27/2001	Andrew Dodd	6114	8516

7590 05/19/2003

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EXAMINER	
ROSE, ROBERT A	
ART UNIT	PAPER NUMBER
3723	11

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

N.K.

Office Action Summary	Application No. 09/762,652	Applicant(s) Dodd et al
	Examiner Robert Rose	Art Unit 3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 4, 2003* .

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1, 3, 4, 11, 12, 15, and 16* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1, 3, 4, 11, 12, 15, and 16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. Claims 2, 5-10, and 13-14 have been canceled.

2. Claims 1, 3-4, 11-12, and 15-16 are presented for examination.

3. Claims 1, 3-4, 11-12, and 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 3-4 , line 1 Applicant should recite the claim in terms of a method or process if that is what is intended. In claim 1, line 5 the use of the alternative expression "and/or" is deemed to render the scope of the claims indefinite. In claim 1, line 6 the term "preferably" is deemed to render the scope of the claim indefinite. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present

instance, claim 1 recites the broad recitation "between 10 minutes and 1 hour", and the claim also recites "30 minutes" which is the narrower statement of the range/limitation.

In claim 12, line 2 it is unclear whether the recited expression "is improved from 0.13um to around 0.07 um" is intended to recite a range of improvement for the final product after treatment, or whether the "0.13um" is intended to refer to the surface roughness prior to any treatment. Further, in claim 12 it is not clear what parameter is being measured.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 11-12, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Hashimoto or Wood. Both Hashimoto and Wood(British No. 227277) disclose a method of producing a surface finish on bearing surfaces within the recited range by immersion grinding. Processing time is dependent upon the particular workpiece but is given in Hashimoto as 45 minutes for one example(column 6, lines 30-34). The compressive strength increase would have been an expected result of performing the method of either Hashimoto or Wood. The desired range of compressive strength imparted to the bearing surface would have been an

obvious matter of design choice depending upon the conditions under which the bearing is to be used.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto or Wood in view of Ohno. Ohno disclose a conventional apparatus for finishing workpieces comprising a rotary abrasive media receptacle and a rotary holder for preventing workpieces from contacting each other during immersion machining. To finish the bearing surfaees in a conventional rotary immersion receptacle with rotation of the workpieces within the media, to prevent contact between workpieces would have been obvious in view of Ohno.

7. Applicant's arguments filed March 4, 2003 have been fully considered but they are not persuasive. Applicant's new limitation of "the hard particle abrasion being performed for between 10 minutes and 1 hour" is deemed to be disclosed in the art of record. Applicant's further recitation of "preferably 30 minutes" is deemed to render the scope of the claim indefinite in that the metes and bounds of the recitation are not clear. Further, with regard to applicant's recitation of the compressive stress and fatigue life of the final product, these parameters are results rather than limitations of the method steps, and must therefore follow as a result of performing the steps recited. If a result other than this is attainable by performing these method steps, then the steps have not set forth distinctly the subject matter which applicant regards as his invention. The desired compressive stress range and fatigue life are regarded as obious matters of design choice depending upon the particular application intended for the final product.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (703) 308-1360.

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May 14, 2003.

ROBERT A. ROSE
PRIMARY EXAMINER
ART UNIT 323